

**AMENDMENTS TO THE SPECIFICATION**

**Please cancel the amendment made to the paragraph 12 in the Amendment filed on October 16, 2003 and the paragraph 12 with the following rewritten paragraph 12:**

[12] One common disadvantage among these reports is that desalting could not be performed before loading the analytes into a 2nd column when the effluent from 1st column requires salt containing buffers. Many choices for a second analytical chromatographic mode are incompatible with salt buffers for optimal separation. Additionally, because mass spectrometry is frequently used as a detector to provide sensitivity and selectivity, the samples (or solutions) containing non-volatile salts are incompatible with optimal performance. Deposition of salt interferes with electrospray ionization and transfer of the vaporized ions into the mass spectrometer.

~~Additionally, US Patent Nos. 5,117,109 and 5,449,902 show unique valve mechanisms adapted to liquid chromatograph systems using single or plural trapping columns. Although these patents focus on an automated sample pre-treatment technique, mainly such as dilution, extraction or desalting before liquid chromatograph mass spectrometry, neither describes nor assumes a multi-dimensional chromatographic separation technique having orthogonal separation modes. US Patent No. 5,117,109 discloses the valve configuration using a single trapping column with plural sample tubes in which elutants from a 1<sup>st</sup> analytical column can be collected. In fact, it is arduous for the configuration disclosed in this Patent to be adapted to a multi-dimensional chromatographic separation system from the point of view of seamless multi-dimensional chromatographic profiling, since this configuration has just one trapping column~~

~~and sample trapping tubes do not have enough capacity to collect all elutants from the 1<sup>st</sup>~~  
~~analytical column. US Patent No. 5,449,902 discloses an improved valve mechanism on which~~  
~~plural trapping columns are mounted and several types of valve and flow path configurations for~~  
~~sample pre-treatment. But, these systems do not have two (or more) independent analytical~~  
~~columns, nor are they intended for use in a multi-dimensional separation system.~~